## D' LIBRAR **VP&RPTP SCIENCE COLLEGE- VALLABH VIDYANAGAR** Internal test: 2016-17 / Nac **B.Sc. SEMESTER - VI** US05CPHY06 PHYSICS (A & A) Date: 06/10/2016 Time: 11:00 am to 12:30pm Max marks: 25 Instructions: (i). All the questions are compulsory. (ii). Figure on right hand side indicates full marks of that question. O-1. **CHOOSE CORRECT ANSWER FROM GIVEN OPTIONS:** [3] can record spectra of many stars in one photograph. b. Slitless spectrograph a. Slit spectrograph c. microscope d. Radio telescope Granulation represent phenomenan of 2 a. Radiative transfer b. Nuclear fission c. Convactive transfer d. Nuclear fusion 3 Binary stars revolve around a. Each other b. Sun c. Common center of mass d. Center of Galaxy Q-2. Answer any two short questions from followings: [4] Define proper motion of stars. 1. 2. Define Limb darkening of the Sun. 3. Why eclipsing binaries are called eclipsing? Discuss celestial coordinate system for positioning of stars. O- 3. [6] OR Q-3. Write a detailed note on Radio telescopes. [6] (a) Explain H-D classification of stars. Q-4. [4] (b) What is Morgan and Keenan's modification to H-D classification? [2] OR Q-4. (a) Explain mass transfer in binary stars. [4] (b) What is difference between spectroscopic and spectrum binaries? [2] Q-5. (a) Explain temperature profile of solar atmosphere. [4] (b) Why temperature rises in reversing layer? [2] OR Q-5. (a) Define prominence. [2] (b) Discribe different types of prominence [4]

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